

In the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecules ~~which~~ that hybridizes under stringent conditions to a molecule consisting of the complement of the nucleotide sequence set forth as of SEQ ID NO: 1 and which codes for a MIVR-1 polypeptide having cardiac cell anti-apoptotic activity,

wherein the stringent conditions are hybridization at 65°C in hybridization buffer (3.5 x SSC, 0.02% Ficoll, 0.02% polyvinyl pyrrolidone, 0.02% Bovine Serum Albumin, 2.5mM NaH₂PO₄(pH7), 0.5% SDS, 2mM EDTA), wherein SSC is 0.15M sodium chloride/0.015M sodium citrate, pH7; SDS is sodium dodecyl sulphate; and EDTA is ethylenediaminetetracetic acid.

(b) nucleic acid molecules that differ from the nucleic acid molecules of (a) ~~or (b)~~ in codon sequence due to the degeneracy of the genetic code, and

(c) complements of (a) or (b).

2. (Original) The isolate nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule comprises the nucleotide sequence set forth as SEQ ID NO: 1.

3. (Original) The isolated nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule consists of the nucleotide sequence set forth as SEQ ID NO: 3 or a fragment thereof.

4. (Currently Amended) An isolated nucleic acid molecule selected from the group consisting of

(a) unique fragments of a nucleotide sequence set forth as SEQ ID NO: 1, and

(b) complements of (a),

provided that ~~the~~a-unique fragment of (a) includes a sequence of contiguous nucleotides which is not identical to any sequence selected from the sequence group consisting of

- (1) sequences selected from the group consisting of SEQ ID NOs: 14-16, and 17,
- (2) complements of (1), and
- (3) fragments of (1) ~~and~~or (2).

5-7 (Cancelled)

8. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 1, operably linked to a promoter.

9. (Original) An expression vector comprising the isolated nucleic acid molecule of claim 4 operably linked to a promoter.

10. (Original) A host cell transformed or transfected with the expression vector of claim

8.

11. (Original) A host cell transformed or transfected with the expression vector of claim

9.

12-67 (Cancelled)

68. (Currently Amended) A composition, comprising:

an agent comprising ~~an~~the isolated ~~MIVR-1~~nucleic acid molecule of claim 1, and a carrier.

69-78 (Cancelled)

79. (Previously Presented) The isolated nucleic acid molecule of claim 4, wherein the sequence of contiguous nucleotides is selected from the sequence group:

- (1) at least two contiguous nucleotides nonidentical to the sequence group,

- (2) at least three contiguous nucleotides nonidentical to the sequence group,
- (3) at least four contiguous nucleotides nonidentical to the sequence group,
- (4) at least five contiguous nucleotides nonidentical to the sequence group,
- (5) at least six contiguous nucleotides nonidentical to the sequence group, and
- (6) at least seven contiguous nucleotides nonidentical to the sequence group.

80. (Currently Amended) The isolated nucleic acid molecule of claim 4, wherein the unique fragment has a size selected from the group consisting of at least: 8 nucleotides, 10 nucleotides, 12, nucleotides, 14 nucleotides, 16 nucleotides, 18 nucleotides, 20 nucleotides, 22 nucleotides, 24 nucleotides, 26 nucleotides, 28, nucleotides, 30 nucleotides, 50 nucleotides, 75 nucleotides, 100 nucleotides and 200 nucleotides.

81. (Previously Presented) The isolated nucleic acid molecule of claim 4, wherein the molecule encodes a polypeptide which is immunogenic.

82. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 2 operably linked to a promoter.

83. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 3 operably linked to a promoter.

84. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 4 operably linked to a promoter.

85. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 79 operably linked to a promoter.

86. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 80 operably linked to a promoter.

87. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 81 operably linked to a promoter.

88. (New) A composition, comprising:

an agent comprising the isolated nucleic acid molecule of claim 4, and
a carrier.

C. J.

concluded